

Modélisation de la dispersion atmosphérique des  
toxiques en cas d'incendie de trois cellules de  
stockage de pneumatiques

Incendie de trois cellules de stockage  
**Dispersion des suies**  
Condition A, vent 2 m/s

SITE DATA INFORMATION:

Location: MER, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied)

Time: May 4, 2020 1445 hours ST (using computer's clock)

ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)

Wind: 2 meters/sec from SW at 3 meters

No Inversion Height

**Stability Class: A (user override) Air Temperature: 20° C**

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

SOURCE STRENGTH INFORMATION:

**Direct Source: 164 kilograms/sec Source Height: 437 meters**

Release Duration: 60 minutes

Release Rate: 9,840 kilograms/min

Total Amount Released: 590,400 kilograms

FOOTPRINT INFORMATION:

Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion des suies**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied)

Time: May 4, 2020 1446 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters

No Inversion Height

**Stability Class: D**

**Air Temperature: 20° C**

Relative Humidity: 50%

Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 164 kilograms/sec Source Height: 175 meters**

Release Duration: 60 minutes

Release Rate: 9,840 kilograms/min

Total Amount Released: 590,400 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion des suies**  
Condition F, vent 3 m/s

SITE DATA INFORMATION:

Location: MER, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied)

Time: May 4, 2020 1448 hours ST (using computer's clock)

ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)

Wind: 3 meters/sec from SW at 3 meters

No Inversion Height

**Stability Class: F (user override) Air Temperature: 15° C**

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

SOURCE STRENGTH INFORMATION:

**Direct Source: 164 kilograms/sec Source Height: 291 meters**

Release Duration: 60 minutes

Release Rate: 9,840 kilograms/min

Total Amount Released: 590,400 kilograms

FOOTPRINT INFORMATION:

Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du Monoxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1452 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 79.56 kilograms/sec    Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 4,770 kilograms/min  
Total Amount Released: 286,416 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du Monoxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1453 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**                      **Air Temperature: 20° C**  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 79.56 kilograms/sec    Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 4,770 kilograms/min  
Total Amount Released: 286,416 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du Monoxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1455 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override)    Air Temperature: 15° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 79.56 kilograms/sec    Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 4,770 kilograms/min  
Total Amount Released: 286,416 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
    Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du Dioxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1502 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)   Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 2121.2 kilograms/sec   Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 127,000 kilograms/min  
Total Amount Released: 7,636,320 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.



Incendie de trois cellules de stockage  
**Dispersion du Dioxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1504 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**                      **Air Temperature: 20° C**  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 2121.2 kilograms/sec   Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 127,000 kilograms/min  
Total Amount Released: 7,636,320 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du Dioxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1505 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm    TEEL-2: 30000 ppm    TEEL-1: 30000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override)    Air Temperature: 15° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 2121.2 kilograms/sec    Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 127,000 kilograms/min  
Total Amount Released: 7,636,320 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du SO<sub>2</sub>**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1506 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 10.77 kilograms/sec    Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 646 kilograms/min  
Total Amount Released: 38,772 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion du SO<sub>2</sub>**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1507 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**      **Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 10.77 kilograms/sec**    **Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 646 kilograms/min  
Total Amount Released: 38,772 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion du SO<sub>2</sub>**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1508 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 10.77 kilograms/sec    Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 646 kilograms/min  
Total Amount Released: 38,772 kilograms  
Note: This chemical may flash boil and/or result in two phase flow..

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du NO<sub>2</sub>**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1512 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 3.06 kilograms/sec    Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 184 kilograms/min  
Total Amount Released: 11,016 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion du NO<sub>2</sub>**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1514 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**                      **Air Temperature: 20° C**  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 3.06 kilograms/sec**    **Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 184 kilograms/min  
Total Amount Released: 11,016 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion du NO<sub>2</sub>**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1516 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 3.6 kilograms/sec    Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 184 kilograms/min  
Total Amount Released: 11,016 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC



Incendie de trois cellules de stockage  
**Dispersion du formol**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1518 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppm  
Normal Boiling Point: 100.6° C      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 0.122 kilograms/sec    Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 7.32 kilograms/min  
Total Amount Released: 439 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion du formol**  
Condition D, vent 5 m/s

SITE DATA INFORMATION:

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1519 hours ST (using computer's clock)

CHEMICAL INFORMATION:

Chemical Name: FORMIC ACID      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppm  
Normal Boiling Point: 100.6° C      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**      **Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

SOURCE STRENGTH INFORMATION:

**Direct Source: 0.122 kilograms/sec**    **Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 7.32 kilograms/min  
Total Amount Released: 439 kilograms

FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion du formol**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1520 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppm  
Normal Boiling Point: 100.6° C      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 0.122 kilograms/sec    Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 7.32 kilograms/min  
Total Amount Released: 439 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion des fumées d'incendie\_ Seuils équivalents**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1521 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: A (user override)    Air Temperature: 20° C**  
Relative Humidity: 50%                      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 2451.06 kilograms/sec    Source Height: 437 meters**  
Release Duration: 60 minutes  
Release Rate: 147,000 kilograms/min  
Total Amount Released: 8,823,816 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (11346 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (31018 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion des fumées d'incendie\_ Seuls équivalents**  
Condition D, vent 5 m/s

SITE DATA INFORMATION:

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1522 hours ST (using computer's clock)

ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: D**                      **Air Temperature: 20° C**  
Relative Humidity: 50%                      Ground Roughness: open country  
Cloud Cover: 5 tenths

SOURCE STRENGTH INFORMATION:

**Direct Source: 2451.06 kilograms/sec**    **Source Height: 175 meters**  
Release Duration: 60 minutes  
Release Rate: 147,000 kilograms/min  
Total Amount Released: 8,823,816 kilograms

FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian  
Red LOC (31018 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (11346 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie de trois cellules de stockage  
**Dispersion des fumées d'incendie\_ Seuils équivalents**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: MER, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: May 4, 2020 1523 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
**Stability Class: F (user override) Air Temperature: 20° C**  
Relative Humidity: 50% Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

**Direct Source: 2451.06 kilograms/sec Source Height: 291 meters**  
Release Duration: 60 minutes  
Release Rate: 147,000 kilograms/min  
Total Amount Released: 8,823,816 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31018 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (11346 mg/(cu m)) Max Threat Zone: **LOC is not exceeded**  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC